

**US DEPARTMENT OF
DEFENSE (DoD)
ACTIVE DUTY
EYE INJURY SUMMARY
CALENDAR YEAR 2001**

Approved for public release, distribution unlimited

2013



CY 2001 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY SUMMARY

INTRODUCTION: In 2010 the Armed Forces Health Surveillance Center (AFHSC) and Tri-Service Vision Conservation and Readiness Program (TSVCRP) of the US Army Public Health Command (USAPHC) began development of an Annual Active Duty Military Eye Injury Summary that would detail cause and type of injury along with demographics of eye injuries (Age, Gender, Rank, Occupational Group).

The first edition of the summary and annual summaries back through calendar year 2000, were produced in the spring of 2011. An analysis of years 2000-2010 was published in the May 2011 Medical Surveillance Monthly Report (MSMR). The AFHSC also developed a Case Definition for Eye Injuries that details the code set and methodology used to develop the summaries. Both the MSMR Article and Case Definition for Eye Injuries are available on the AFHSC website: <http://afhsc.army.mil/home>.

This summary contains detailed data, along with a set of summary tables detailing Ambulatory and Hospitalization rates (per 1000 person-years) for Injury Group, Cause of Injury and Occupational Group. Summary tables for Deployment-Associated Eye Injuries detailing frequency of Eye Injuries by Type of Injury and Occupational Group are also provided. Occupational Group data is for Enlisted members only. Deployment-Associated Eye Injuries are presented without regard to Ambulatory or Hospitalized status.

As one of the underlying goals of the summary is to make eye injury surveillance data accessible and useable, individual annual eye injury summaries for all years and all services (Combined DoD, Army, Navy, Air Force, Marine Corps and Coast Guard) are posted on the USAPHC public website.

For questions or additional information regarding the summaries please contact the TSVCRP:

By Email: usarmy.apg.medcom-phc.mbx.dcpm-tri-service-optometry@mail.mil

Telephone: 410-436-2714 FAX: 410-436-1325

Additional program information and educational materials can be found at: <http://dodvision.com/> and the USAPHC Public Website at: <http://phc.amedd.army.mil/Pages/default.aspx>

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INJURY CODE GROUP DETAILS: The following code groupings were used to develop the summary. Additional details may be found in the AFHSC Case Definition available at: <http://afhsc.army.mil/home>.

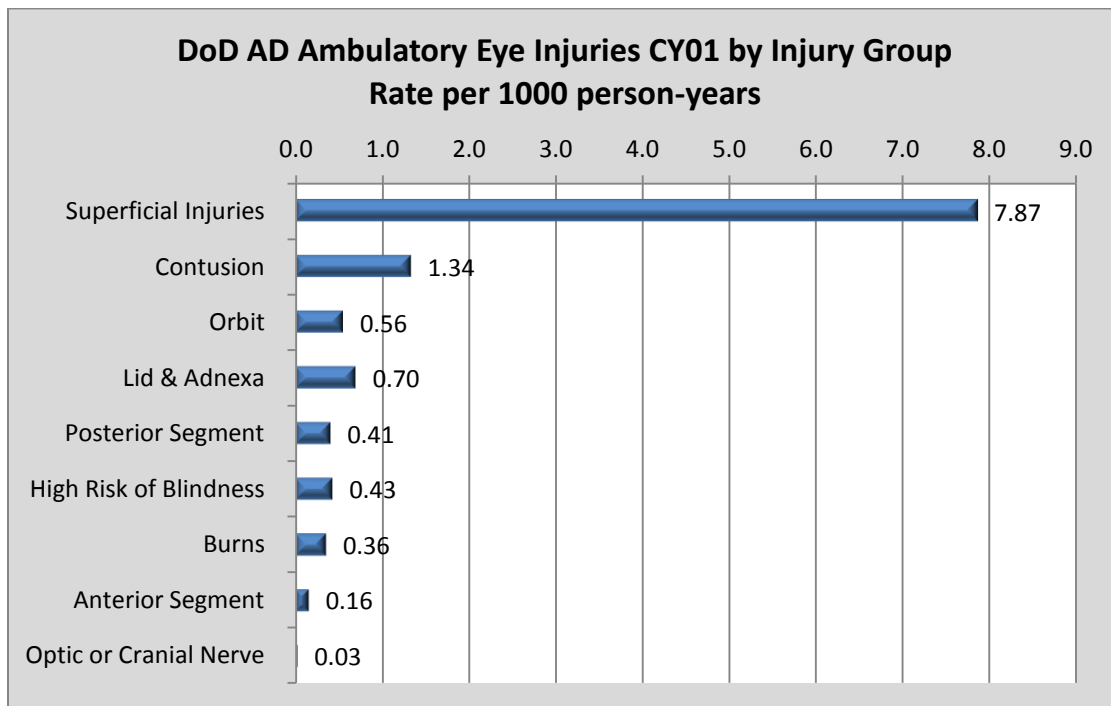
- 1) **Superficial:** all 918 series codes (superficial injury of eye and adnexa) and all 930 series codes (foreign body on external eye).
- 2) **Contusion:** all 921 series codes (contusion of eye and adnexa).
- 3) **Orbit:** All 802 series codes (fracture of face bones), 870.3 and 870.4 (penetrating wound of orbit without and with foreign body) and 376.32 (orbital hemorrhage).
- 4) **Lid/adnexa:** all 870 series codes (open wound of ocular adnexa) with the exception of 870.3 and 870.4 (see orbit above).
- 5) **Posterior segment:** 362.81 (retinal hemorrhage), all 361.0x series codes (retinal detachment with retinal defect), 363.61 (choroidal hemorrhage, unspecified), 363.63 (choroidal rupture), 379.23 (vitreous hemorrhage), 360.00 and 360.01 (purulent and acute endophthalmitis).
- 6) **High risk of blindness:** all 871 series codes (open wound of eyeball).
- 7) **Burns:** all 940 series codes (burn confined to eye and adnexa) as well as all 940.x2 codes (burns to eye with other parts of face, head and neck).
- 8) **Anterior segment:** 364.41 (hyphema), 366.21 and 366.22 (localized and total traumatic cataract), and 364.76 (iridodialysis).
- 9) **Optic/cranial nerve:** 950.0 (optic nerve injury), 950.1 (injury to optic chiasm), 950.9 (injury to optic nerve and pathways, unspecified), 951.0 (injury to oculomotor nerve), 951.1 (injury to trochlear nerve) and 951.3 (injury to abducens nerve).

DETAILS FOR TOTAL NUMBERS: Because patients may have been coded with more than one injury group or cause of injury, the sum of cases by injury group and the sum of cases by causes of injury will be greater than the total number of patients.

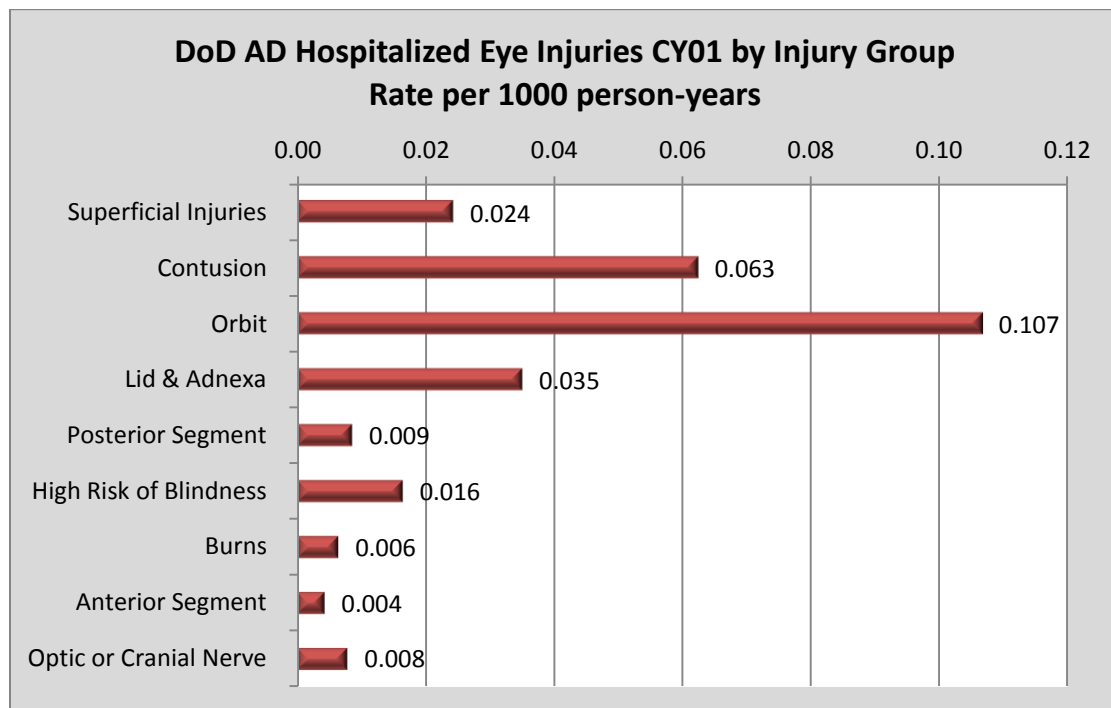
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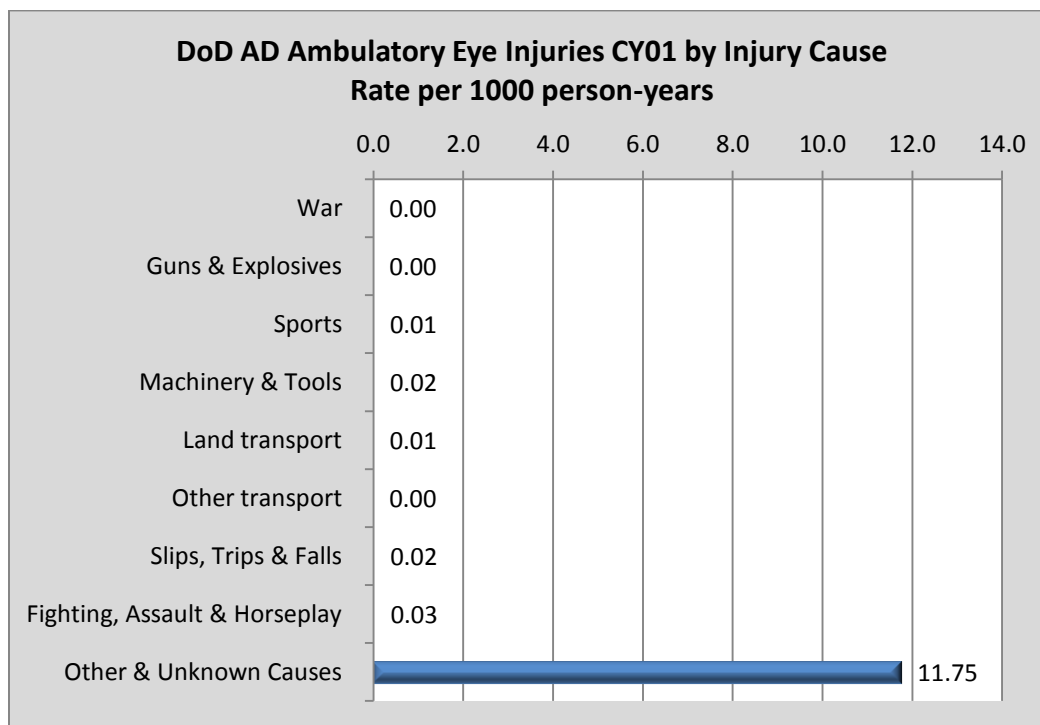
Please note the difference in scale between Ambulatory and Hospitalized graphs



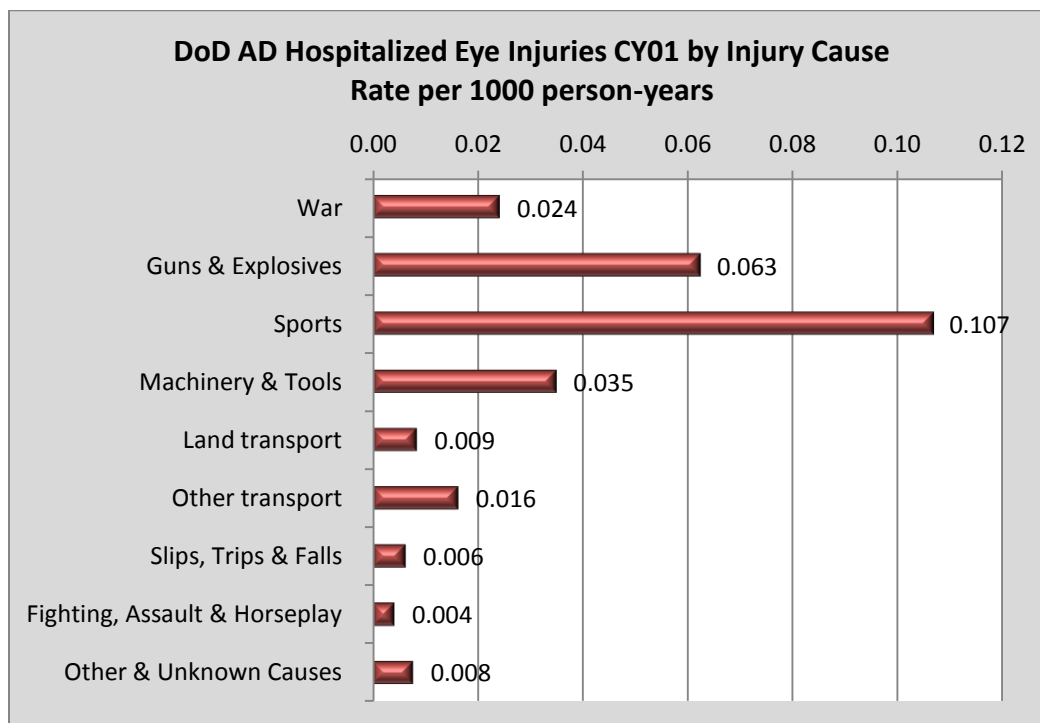
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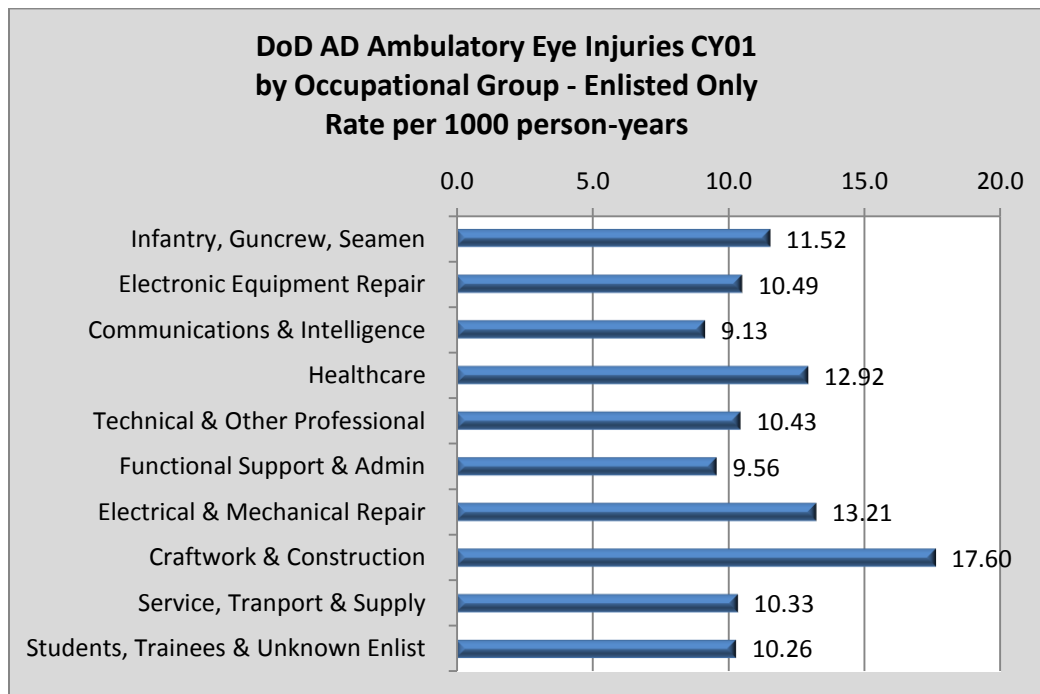
Please note the difference in scale between Ambulatory and Hospitalized graphs



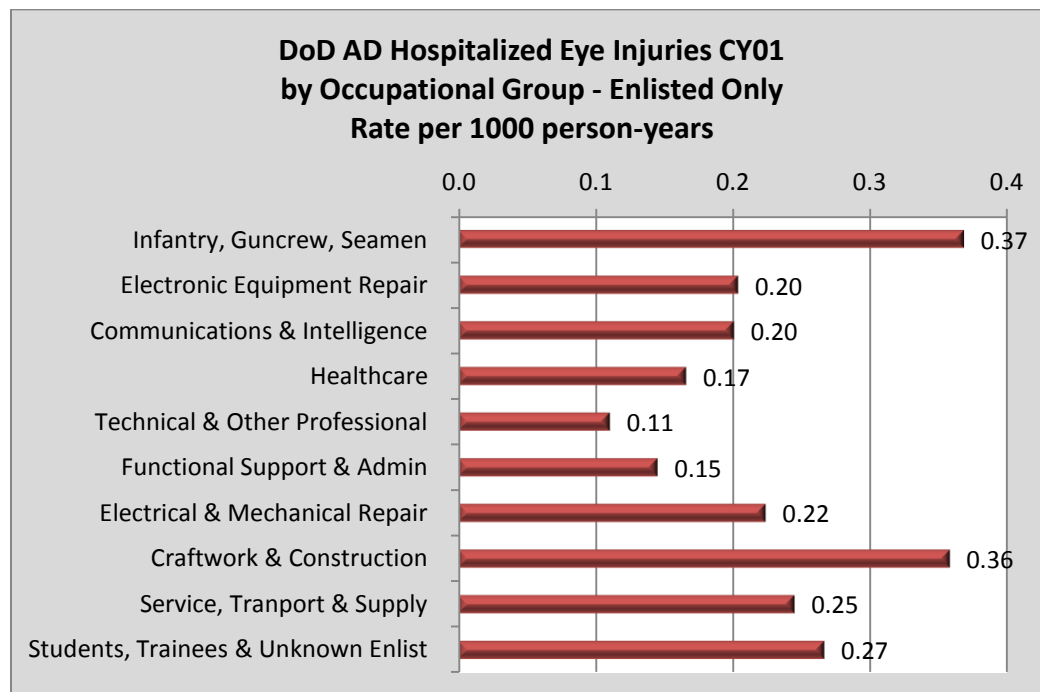
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Please note the difference in scale between Ambulatory and Hospitalized graphs



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CY 2001 DEPARTMENT OF DEFENSE (DOD) COMBINED ACTIVE DUTY (AD) EYE INJURY SUMMARY

	2001											
	Ambulatory MTF Visits				Deployment-Associated Healthcare				Hospitalizations			
	Primary		All Diagnoses		Primary		All Diagnoses		Primary		All Diagnoses	
	Count	Rate¹	Count	Rate	Count	% total³	Count	% total³	Count	Rate	Count	Rate
ALL ACTIVE COMPONENT												
Total	14,016	10.03	15,528	11.12	-	-	-	-	94	0.07	296	0.21
Superficial Injuries	10,212	7.31	10,995	7.87	-	-	-	-	9	0.01	34	0.02
Contusion	1,547	1.11	1,861	1.34	-	-	-	-	38	0.03	87	0.06
Orbit	611	0.44	775	0.56	-	-	-	-	52	0.04	149	0.11
Lid & Adnexa	876	0.63	977	0.70	-	-	-	-	21	0.02	49	0.04
Posterior Segment	460	0.33	572	0.41	-	-	-	-	10	0.01	12	0.01
High Risk of Blindness	520	0.37	603	0.43	-	-	-	-	15	0.01	23	0.02
Burns	463	0.33	500	0.36	-	-	-	-	2	0.00	9	0.01
Anterior Segment	191	0.14	223	0.16	-	-	-	-	6	0.00	6	0.00
Optic or Cranial Nerve	23	0.02	41	0.03	-	-	-	-	0	0.00	11	0.01
Male	12,169	10.21	13,472	11.30	-	-	-	-	87	0.07	273	0.23
Female	1,847	9.01	2,056	10.03	-	-	-	-	7	0.03	23	0.11
War	1	0.00	2	0.00	not assessed²				3	0.00	5	0.00
Guns & Explosives	3	0.00	4	0.00					7	0.01	18	0.01
Sports	15	0.01	17	0.01					11	0.01	23	0.02
Machinery & Tools	19	0.01	23	0.02					20	0.01	24	0.02
Land transport	8	0.01	11	0.01					17	0.01	51	0.04
Other transport	0	0.00	0	0.00					4	0.00	7	0.01
Slips, Trips & Falls	25	0.02	29	0.02					4	0.00	16	0.01
Fighting, Assault & Horseplay	24	0.02	41	0.03					30	0.02	62	0.04
Other & Unknown Causes	14,808	10.60	16,420	11.75					57	0.04	174	0.12
ENLISTED (all diagnoses combined)												
Enlisted	12,024	10.23	13,321	11.34	-	-	-	-	85	0.07	275	0.23
<20	1,316	8.14	1,453	8.99	-	-	-	-	12	0.07	39	0.24
20-24	4,567	10.71	5,120	12.00	-	-	-	-	41	0.10	132	0.31
25-29	2,299	10.67	2,528	11.74	-	-	-	-	10	0.05	48	0.22
30-34	1,547	9.84	1,690	10.75	-	-	-	-	13	0.08	27	0.17
35-39	1,475	9.97	1,629	11.01	-	-	-	-	5	0.03	15	0.10
>=40	820	12.43	901	13.65	-	-	-	-	4	0.06	14	0.21
E0-E4	6,805	10.87	7,571	12.09	-	-	-	-	61	0.10	197	0.31
E5-E9	5,219	9.51	5,750	10.48	-	-	-	-	24	0.04	78	0.14
Infantry, Guncrew, Seamen	2,035	10.29	2,278	11.52	-	-	-	-	19	0.10	73	0.37
Electronic Equipment Repair	1,065	9.46	1,181	10.49	-	-	-	-	6	0.05	23	0.20
Communications & Intelligence	862	8.26	953	9.13	-	-	-	-	8	0.08	21	0.20
Healthcare	926	11.85	1,010	12.92	-	-	-	-	7	0.09	13	0.17
Technical & Other Professional	336	9.30	377	10.43	-	-	-	-	2	0.06	4	0.11
Functional Support & Admin	1,646	8.55	1,839	9.56	-	-	-	-	9	0.05	28	0.15
Electrical & Mechanical Repair	2,829	11.98	3,120	13.21	-	-	-	-	13	0.06	53	0.22
Craftwork & Construction	714	16.01	785	17.60	-	-	-	-	3	0.07	16	0.36
Service, Transport & Supply	932	9.53	1,010	10.33	-	-	-	-	10	0.10	24	0.25
Students, Trainees & Unknown Enlist	679	9.07	768	10.26	-	-	-	-	8	0.11	20	0.27
Army	4,316	10.83	4,717	11.84	-	-	-	-	41	0.10	125	0.31
Navy	2,911	9.25	3,271	10.40	-	-	-	-	18	0.06	54	0.17
Air Force	3,099	11.06	3,445	12.29	-	-	-	-	10	0.04	29	0.10
Marine Corps	1,380	8.99	1,540	10.03	-	-	-	-	14	0.09	54	0.35
Coast Guard	318	11.36	348	12.43	-	-	-	-	2	0.07	13	0.46
OFFICER (all diagnoses combined)												
Officer	1,992	8.97	2,207	9.94	-	-	-	-	9	0.04	21	0.09
<20	0	0.00	0	0.00	-	-	-	-	0	0.00	0	0.00
20-24	163	7.05	182	7.88	-	-	-	-	1	0.04	1	0.04
25-29	420	8.40	456	9.12	-	-	-	-	1	0.02	7	0.14
30-34	412	8.56	459	9.53	-	-	-	-	2	0.04	5	0.10
35-39	385	8.47	438	9.63	-	-	-	-	2	0.04	3	0.07
>=40	612	11.07	672	12.16	-	-	-	-	3	0.05	5	0.09
O0-O3,W0-W3	1,181	8.79	1,301	9.68	-	-	-	-	4	0.03	13	0.10
O4-O10,W4-W5	811	9.26	906	10.34	-	-	-	-	5	0.06	8	0.09
General/Flag Ofc & Executives	25	12.69	28	14.21	-	-	-	-	0	0.00	1	0.51
Tactical Operations Off.	727	8.82	792	9.61	-	-	-	-	3	0.04	7	0.08
Intelligence Off.	79	6.90	97	8.47	-	-	-	-	0	0.00	0	0.00
Engineering & Maintenance Off.	302	9.66	333	10.65	-	-	-	-	1	0.03	4	0.13
Healthcare Off.	356	9.44	391	10.37	-	-	-	-	1	0.03	2	0.05
Scientists & Professional Off.	83	8.41	96	9.72	-	-	-	-	1	0.10	2	0.20
Administrative Off.	123	8.04	142	9.28	-	-	-	-	0	0.00	1	0.07
Supply & Logistics Off.	163	8.37	184	9.45	-	-	-	-	3	0.15	4	0.21
Students, Trainees & Unknown Off.	134	10.66	144	11.45	-	-	-	-	0	0.00	0	0.00
Army	611	8.08	683	9.04	-	-	-	-	6	0.08	9	0.12
Navy	560	10.46	607	11.34	-	-	-	-	1	0.02	1	0.02
Air Force	576	8.48	649	9.56	-	-	-	-	1	0.01	5	0.07
Marine Corps	193	10.71	212	11.77	-	-	-	-	1	0.06	5	0.28
Coast Guard	52	7.47	56	8.04	-	-	-	-	0	0.00	1	0.14

1. Rates are per 1,000 person-years.

2. Use of ICD-9-CM E-codes for "cause of injury" is largely incomplete for theater healthcare records and therefore omitted.

3. Person-time is not available for deployers so the proportion of the total number of diagnoses is shown.

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Prepared by Armed Forces Health Surveillance Center (AFHSC)

Source: Defense Medical Surveillance System (DMSS) as of 29-MAR-2011



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